

WHAT IS CLAIMED IS:

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1. A display apparatus comprising:  
at least one image display means; and  
a projection optical system for obliquely  
5 projecting image light from said at least one image  
display means onto a projection surface,  
wherein said projection optical system includes a  
plurality of aspherical curved mirrors and projects the  
image light without distortion (not more than 1.2%).

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2. An apparatus according to claim 1, wherein the  
curved mirrors include at least six aspherical curved  
mirrors.

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3. An apparatus according to claim 2, wherein  
said projection optical system includes at least one  
plane mirror.

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4. An apparatus according to claim 3, wherein at  
least one of the plane mirrors is placed parallel to  
the projection surface.

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5. An apparatus according to claim 4, wherein  
said at least six aspherical curved mirrors and said at  
least one plane mirror are sequentially arranged from  
the image display means side.

6. An apparatus according to claim 1, further comprising an aperture stop between said image display means and said projection optical system.

5           7. An apparatus according to claim 2, further comprising an aperture stop between said image display means and said projection optical system.

10           8. An apparatus according to claim 2, further comprising an aperture stop between a second curved mirror and a third curved mirror from the image display means side.

15           9. An apparatus according to claim 3, further comprising an aperture stop between said image display means and the curved mirror.

*which one?*

20           10. An apparatus according to claim 3, further comprising an aperture stop between a second curved mirror and a third curved mirror from the image display means side.

25           11. An apparatus according to claim 2, wherein said projection optical system includes:

at least two plane mirrors arranged parallel to the projection surface; and

an aperture stop.

12. An apparatus according to claim 1, wherein  
the projection surface receives light from said  
5 image display means and

the projection surface is constructed such that at  
least two eccentric Fresnel plates which have  
substantially the same structure are stacked on each  
other.

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13. An apparatus according to claim 1, wherein  
light from said image display means is projected on the  
projection surface from a rear surface thereof.

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14. An image processing apparatus comprising:  
said display apparatus defined by claim 1; and  
an image information input device for supplying  
image information to said display apparatus.

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15. An apparatus according to claim 14, wherein  
said image information input device comprises an  
arithmetic unit (computer).

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16. A display apparatus comprising:  
at least one image display means;  
a projection surface; and  
a projection optical system for obliquely

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projecting image light from said at least one image display means onto said projection surface,

wherein said projection optical system includes at least six aspherical curved mirrors and a plurality of plane mirrors which are sequentially arranged from the  
5 image display means side.

17. An apparatus according to claim 16, further comprising an aperture stop between said curved mirror and said image display means.  
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18. An apparatus according to claim 16, further comprising an aperture stop between second and third mirrors of the curved mirrors from said image display means.  
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19. A projection optical system for obliquely projecting light from image display means, comprising a plurality of aspherical curved mirrors, wherein an  
20 image is projected without distortion (not more than 1.2%).